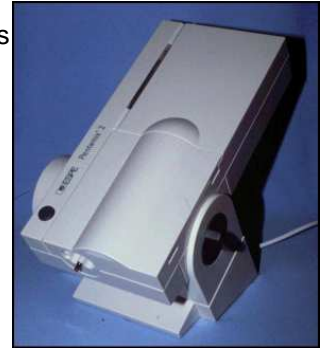


Pentamix 2 Cybernetic Impression Material Mixing System (Project 99-16) (01/00)

The Pentamix 2 is an electrically-powered machine for mixing and dispensing impression materials. Impression materials supplied in sausage-shaped plastic bags ("polybags") are inserted into a hard plastic cartridge (shown at lower right) that is then placed into the machine. The cartridge holds one polybag each of base and catalyst. Depressing a button on the top of the machine causes a plunger to slowly express the base and catalyst into a mixing tip that spins the two pastes together to produce a homogeneous mix. The mixed impression material is then extruded from the tip. Before each use, a new mixing tip is placed on the cartridge. A variety of impression materials in polybags are available separately from ESPE America and include addition silicones (heavy- and light-body), polyether, and a polyether bite registration material. An innovative addition silicone material called Position Penta that is used as an alginate replacement can also be purchased in polybag form for use in the machine.



The Pentamix 2 has a fill indicator that shows how much impression material is available in the cartridge. The unit, which can be wall mounted or placed on a countertop, is approximately 14 inches long by 6½ inches wide by 8 inches high and weighs 21 pounds. It has a two-year warranty.



Manufacturer:

ESPE America
1710 Romano Drive
P.O. Box 111
Norristown, PA 19404-0111
(800) 782-1571
(610) 277-3800
(800) 458-3987 FAX
www.espeusa.com

Suggested Retail Price:

\$879.00

Government Price:

\$570.00

ADVANTAGES:

- + Simplifies impression mixing and dispensing.
- + Produces and dispenses well-mixed impression materials.
- + One button-operation and ability to be barrier protected enhance infection control.
- + Cartridge and materials are color-coded to prevent confusion.
- + Provides easy access to different types of impression material.
- + Can be wall-mounted or placed on a countertop.
- + Easy to use.
- + Quiet operation.
- + Has indicator level to tell user how much impression material is left.
- + Provided with well-written, complete instructions.

DISADVANTAGES:

- Expensive.
- Evaluators reported that the unit doesn't mix and dispense material fast enough.
- Not practical to use machine to mix both light- and heavy-body materials for same patient.
- Unit is large and takes up valuable operatory space.

SUMMARY AND CONCLUSIONS:

The Pentamix 2 mixes impression materials thoroughly and simplifies the impression making process. The machine is quiet, easy to use, and simple in design. Its one-button operation and ease of disinfection (or barrier protection) facilitate infection control. Although still expensive, its government price has been reduced by over \$100 since it was originally introduced in 1993. Clinical evaluators found it difficult to use the Pentamix 2 to mix light-body material and then heavy-body material for use in the same impression procedure because it is rather slow at mixing. As a result, one automix gun will probably have to be used to allow the doctor to inject the light-body material while the assistant is using the Pentamix 2 for mixing the heavy-body tray material. The machine provides an effective means of mixing a range of impression materials but its widespread acceptance will probably be limited by its price and slowness of operation. The **Pentamix 2 Automatic Mixing Unit** is rated **Acceptable** for use by the federal dental services.